

TWO NEW AMERICAN ARADIDAE (HEMIPTERA-HETEROPTERA)

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By the kind offices of Dr. John F. Lawrence, Museum of Comparative Zoology, Cambridge, Mass., I have had the opportunity to study several lots of Aradidae, collected by him on bracket fungi (Basidiomycetes: Polyporaceae) in various parts of North America. Two of the species were found to be new, and are described below, in order to facilitate a study of fungus-feeding insects now being undertaken by Dr. Lawrence. In the measurements, 25 units = 1 mm.

Aradus oviventris, new species (Figs. 1 — 4)

TYPE DATA: Holotype, ♂, Rustler Park, 8 mi. W Portal, Cochise Co., Arizona, VIII.8.1961, J. F. Lawrence, coll. (Lot No. 918), ex *Fomes subroseus* [= *Fomes cajanderi* Karsten] on *Pinus* sp.; deposited in the American Museum of Natural History, New York. Paratypes, 6♂♂ and 6♀♀, same data; in the Museum of Comparative Zoology (MCZ No. 31201) and the author's collection.

DESCRIPTION: Male ovate, with rather broad abdomen; female more narrowed posteriorly. *Head* (Fig. 1) slightly longer than its width through eyes (♂ 32.5:28, ♀ 33:30); anterior process stout, rather short, slightly widened in middle, reaching to basal 1/5 of antennal segment II; antenniferous spines short and stout, acute, and slightly divergent; lateral tooth minute, but distinct; eyes subglobose, very prominent; preocular tubercles small, acute, the postocular blunt; vertex deeply and narrowly, semicircularly depressed, with two rows of rough granules in middle. *Antennae* (Fig. 2) less than twice as long as head (♂ 57:32.5, ♀ 57.5:33), and much narrower than fore femora; segment II subcylindrical, slightly widened in apical third, as long as head width including both eyes (♂), or one eye (♀); III subcylindrical, slightly widened toward apex; IV elongate-ovate; proportions of antennal segments; ♂ 6:28:13:10, ♀ 6.5:27:13:11; rostrum reaching to middle coxae, or, at most, to hind border of prosterum. *Pronotum* (Fig. 1) widest just behind middle, less than half as long as its maximum width (♂ 23:53, ♀

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21:55); anterior border subtruncate; anterolateral borders straight, with irregular teeth; the posterolateral slightly rounded; fore and hind lobes rather flat; interlobal depression shallow; carinae moderately prominent, granulate. *Scutellum* subtriangular, much longer than its width at base (σ 30:23, ♀ 29:23); lateral borders barely convex, almost straight, feebly reflexed; disc flat, finely granulate in basal $2/5$, more roughly so in apical $3/5$; depressed at base, and moderately raised around depression; apex narrowly rounded. *Hemelytra* narrow, leaving entire connexivum and parts of tergum exposed, reaching genital lobes (σ), or tergum VII (♀); corium extending to suture between terga IV and V, its basolateral border expanded, rounded, and more or less reflexed. *Abdomen* longer than its maximum width across segment IV (σ 90:75, ♀ 105:85); lateral borders strongly convex in both sexes, very finely serrate, and slightly notched at PE angles of connexiva; genital plates (Figs. 3—4) slightly convex posteriorly, and slightly notched at spiracles in male, more convex and less notched in female. *Color* testaceous; depression on vertex, apex of antennal segment II, basal $2/3$ of III, entire IV, some spots on pronotum, and lateral borders of scutellum, darker, brown to piceous; posterolateral borders of pronotum, basolateral expansions on hemelytra, oval spots on terga III to VI, and round, callous spots on connexiva III to VI whitish; in some specimens posterior borders of connexiva II to VI, and R + M veins of corium, pinkish; ventral side testaceous, with some darker spots; hind borders of connexiva pink. *Total length*: σ 6.48 mm., ♀ 7.20 mm.; width of pronotum: σ 2.12 mm., ♀ 2.20 mm.; width of abdomen: σ 3.00 mm., ♀ 3.40 mm.

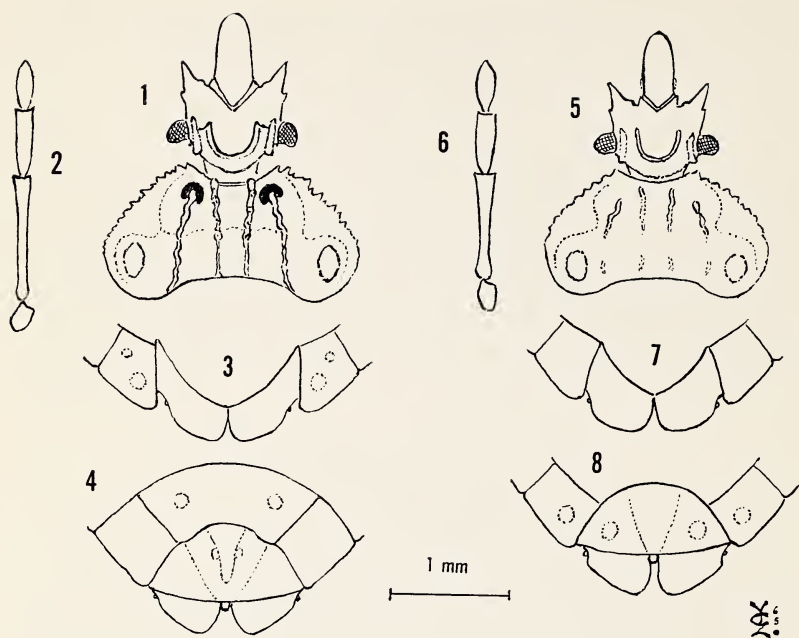
Aradus oviventris keys out to *Aradus basalis* in Parshley², but it may be separated from the latter species by the relatively shorter rostrum, reaching at most to hind border of prosternum, different shape of pronotum (with stronger teeth), relatively shorter antennae (only slightly longer than head and pronotum together), and color.

***Aradus lawrencei*, new species**

(Figs. 5—8)

TYPE DATA: Holotype, σ , 7 mi. NW Wilton, Hillsboro Co., New Hampshire, VII.30.1965, J. F. Lawrence coll. (Lot No. 1559), ex *Fomes cajanderi* Karsten on *Picea* sp.; deposited in the American Museum of Natural History, New York. Paratypes, 2 σ σ and

²Parshley, H. M., 1921. Essay on the American species of *Aradus* (Hemiptera). Trans. Amer. Ent. Soc., 47: 1-106. 7 Pls.



Figs. 1—4. *Aradus oviiventris* n. sp. Fig. 1, head and pronotum; Fig. 2, antenna; Fig. 3, tip of abdomen (♂); Fig. 4, tip of abdomen (♀).

Figs. 5—8. *Aradus lawrencei* n. sp. Fig. 5, head and pronotum; Fig. 6, antenna; Fig. 7, tip of abdomen (♂); Fig. 8, tip of abdomen (♀).

3♀♀, same data; in the Museum of Comparative Zoology (MCZ No. 31202) and the author's collection. One nymph collected with this lot. It is a pleasure to dedicate this species to its collector, Dr. John F. Lawrence.

DESCRIPTION: Male elongate-ovate; pronotum flat; finely granulate. *Head* (Fig. 5) slightly longer than its width through eyes (♂ 29:27, ♀ 32:31); anterior process with parallel sides, but very slightly enlarged at base, reaching a little over $1/5$ of antennal segment II; antenniferous spines strong, acute, slightly divergent; lateral tooth minute, sometimes obsolete; eyes subglobose, very prominent; preocular teeth diminutive, acute, the postocular acute (♂) or blunt (♀); depressions of vertex moderately deep, slightly convergent posteriorly. *Antennae* (Fig. 6) moderately strong, narrower than fore femora; segment II slightly enlarged at base, more so at apex, its length equal to or slightly greater than interocular space plus one eye; proportions of antennal segments: ♂ 6:24:12:11, ♀ 7:27:13.5:

12; rostrum reaching to middle of prosternum. *Pronotum* (Fig. 5) less than half as long as its maximum width (σ 20:47, ♀ 25:56); anterior border sinuate; anterolateral borders straight, with moderately strong, irregular teeth; posterolateral borders barely convex, slightly convergent posteriorly; disc flat; interlobal depression sometimes obsolete in middle or very shallow; carenae thin and semi-obiterated. *Scutellum* triangular, longer than its width at base (σ 26:21, ♀ 32:23), shorter than (σ) or as long as (♀) head; lateral borders low, very slightly convex; apex narrowly rounded; basal elevation obsolete. *Hemelytra* narrow, leaving entire connexivum and parts of tergum exposed; reaching genital lobes (σ) or base of tergum VII (♀); corium extending a little beyond (σ) or to (♀) suture between terga IV and V, its basolateral borders expanded, rounded, and moderately reflexed. *Abdomen* ovate, longer than its maximum width across segment IV (σ 80:66, ♀ 106:84); lateral borders convex, very finely serrate, and slightly notched at PE angles of connexiva; genital lobes (Figs. 7 — 8) slightly convex posteriorly, more so in female. *Color* greyish brown; antennae, head, pronotum, scutellum, and fore half of connexiva slightly darker; lateral borders of pronotum in middle whitish; basolateral expansions of corium, and round, callous spots on connexiva III to VII also whitish; some specimens almost uniformly dark grayish-brown. *Total length*: σ 5.75 mm., ♀ 7.20 mm.; width of pronotum: σ 1.88 mm., ♀ 2.24 mm.; width of abdomen: σ 2.64 mm., ♀ 3.36 mm.

Aradus lawrencei is related to both *Aradus basalis* Parshley and *Aradus oviventris*, n. sp. From the former it differs by the shorter antennal segment II, which is equal in length to the interocular space and one eye only, the much shorter rostrum, reaching only to the middle of the prosternum, the smaller size and different coloration. From the latter species it differs by the shorter rostrum, relatively shorter head (only slightly longer than its width through eyes), relatively shorter antennal segment II, much flatter pronotum, with obsolete, or very shallow interlobal depression, and different coloration.